
ENTREPRENEURIAL MOTIVATIONAL AND PERSONAL EFFECTIVENESS TRAINING TECHNIQUES NEEDED BY TEACHERS OF ELECTRICAL INSTALLATION AND MAINTENANCE WORK TRADE IN NORTH EAST, NIGERIA

By

¹*Dnuh, James, and* ²*Umar Adamu Kwami*

¹Federal Science and Technical College,
Michika, Adamawa State

²Electrical/Electronic Department
Federal College of Education (Technical),
Gombe, Gombe State

²Email: aukwami@yahoo.com

ABSTRACT

This study was designed to determine the entrepreneurial motivational and personal effectiveness training needed by teachers of Electrical Installation and Maintenance Work Trade in Science and Technical colleges in North East Geo-political zone, Nigeria. The entire population of 155 was used, as no sampling was done. The population was made up of 80 teachers of Electrical Installation and Maintenance work trade in 24 science and technical colleges and 75 entrepreneurs in seventy eight private and public industries in the North East Geo-political zone, Nigeria. The instrument used for data collection was 5 points Likert scale questionnaire. Two research questions and hypotheses guided the study. The methods of data analysis used were mean, standard deviation and t-test of difference between two means. Finding indicated among others that there is need to train teachers in the entrepreneurial motivational and personal effectiveness training techniques to be able to make the teachers fit into the current trends of entrepreneurship. Recommendations include among others, the training of electrical installation and maintenance work trade teachers through seminars, conferences, workshops, formal education in order to have good knowledge of entrepreneurial skills to enable them manage small and medium scale enterprises.

INTRODUCTION

Science and technical colleges are post primary institutions where students learn among other things, vocational and technical skills. The National policy on education (Federal Government of Nigeria (FGN, 2008) prescribed that vocational and technical education programmes in science and Technical colleges be run in two stages of three years each, that is pre-vocational at the junior secondary school (JSS) level, while the full vocational courses are run at the senior secondary school (SSS) level.

At the Senior Secondary School level, the vocational trades include wider descriptions of specific behaviours expressed in module of discrete practical task and related knowledge that is demonstrated by students as a result of the educational process to ascertain that the general objectives of the courses have been achieved. Among these courses are the Electrical Installation and Maintenance Work Trade. This is one of the engineering trade courses offered in Science and Technical Colleges (FGN, 2008). The curriculum of all trade courses are presented in modules, that involves employable skills of Electrical Installation and maintenance work trade as section.

The students are awarded the National Technical Certificate (NTC) when they have successfully passed all the relevant modules of the course. This qualifies the students to secure employment in industries, be self-employed or go for further education in similar higher technical institutions (National Business and Technical Examination Board, NABTEB, (2006). The curriculum is presented in modules and consists of five components, namely: (i) General education, (ii) Theory and related course, (iii) workshop practice (iv) Industrial training experience, (v) Small business management training (FGN 2008)

Okoro (2002) explained that teachers make more impact on the performance of students than any other school personnel, but an assessment of present status of teachers of Electrical Installation and Maintenance work trade in science and Technical colleges in North East Geo- Political Zone of Nigeria have shown that they have no knowledge of entrepreneurial motivational techniques and personal effectiveness techniques, which they learnt in their previous years in Tertiary Institutions (Ambasht, 2002).

The fifth component of the curriculum to be achieved in Science and Technical Colleges especially in Electrical Installation and Maintenance Work Trade in Nigeria; the students have to be educated along this direction and the teachers have to be adequately trained on school and organisational motivational techniques that are used in any set up or organizations to boost the behaviours of subordinates under the employers or entrepreneurs which, stimulate them to work hard. In fact, these can either be positive reinforcement or negative (Suleiman, 2000). If effectively used; by teachers it will develop desirable behaviours towards high productivity in the classroom. Praise, approval, encouragement and

attention are all examples of social re-enforcers, students can receive from teachers. Adesina (2001) asserted that the life of those with whom the students associate in school setting has great influence on their learning outcomes, pointing out that one of the most important personalities the child comes in contact with is the teacher.

Personal Effectiveness training techniques represent foundation and personal success at home, school and community and the entire workplace of an individual (Bayatzis, 2002). Personal effectiveness is concerned with doing the right things and relates to output of the job and what the teacher actually achieves. Effectiveness must be related to the achievement of some purpose, objective or task to the performance of the process of management and the execution of work. Bayatzis (2002), pointed out that effectiveness is doing the right things, and that teachers should renew both their effectiveness and efficiency. He also noted that teachers who want to improve should renew both their effectiveness and efficiency; So as to teach the young ones.

Entrepreneurship has been a subject of much debate and discussion. It is looked upon differently by different authors. Ronstad in Anchor (2007) sees entrepreneurship as the dynamic process of creating incremental wealth. Also according to Rogstad in Dnuh (2014), entrepreneurship is a state of mind, a can-do attitude, a capacity to focus on a vision and work towards it. An entrepreneur is looked upon as a person who is ready to undertake risk not minding the circumstance, but aimed at making profits despite the situations.

Ubale (2010) pointed out that the choice of teaching entrepreneurship education in tertiary institutions rested on teachers who have little or no ideas to teach

the subject. The foregoing assertion clearly suggests that Entrepreneurship education teachers in technical colleges need to acquire adequate entrepreneurial motivational and personal effectiveness training if they are to be successful teachers.

Statement of the Problem

In modern day realities, the researchers' observed that, individuals educated in the pure and applied sciences lack adequate entrepreneurial motivational and personal effectiveness training to manage public and private business enterprise. Those individuals may routinely find in themselves with Business management responsibilities either by accident or by design. Even though one can rise to the occasion, it is easier, less waste generating and could be beneficial to the enterprise or organization, if the manager or organizational leader is equipped with the practical trade and in addition the basic principles of entrepreneurial motivational and personal effectiveness training.

Purpose of the study

The main purpose of the study was to determine the entrepreneurial motivational and personal effectiveness training techniques needed by teachers of Electrical Installation and Maintenance Work Trade in Science and Technical colleges in North East Geo-political Zone, Nigeria, specifically, the study sought to;

1. Identify the entrepreneurial motivational training techniques needed by teachers of Electrical Installation and Maintenance Work Trade in science and technical colleges.
2. Determine the entrepreneurial personal training techniques needed by teachers of Electrical Installation and Maintenance Work Trade in science and technical colleges.

Research Questions

The following research questions guided the researcher in this study:

1. What are the entrepreneurial motivational training techniques needed by teachers of Electrical Installation and Maintenance work trade in science and Technical colleges?
2. What are the entrepreneurial personal effectiveness training techniques needed by teachers of electrical installation and maintenance work trade in science and technical colleges?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

- **Ho₁:** There is no significant difference between the mean opinions of electrical installation and maintenance work trade teachers and entrepreneurs on the entrepreneurial motivational training techniques needed by teachers of Electrical Installation and Maintenance work trade in science and Technical colleges.
- **Ho₂:** There is no significant difference between the mean opinions of electrical installation and maintenance work trade teachers and the entrepreneurs on the personal effectiveness training techniques needed by teachers of Electrical Installation and Maintenance work trade in science and Technical colleges.

METHODOLOGY

This section describes the method and procedures used in carrying out the study. It focuses on research design, area of the study, population of the study, instrument for data collection, validation of the instrument, reliability of the instrument, method of data collection and method of data analysis. The study employed a Descriptive Survey Research Design. Descriptive Survey Research Design

according to Tolubi in Onuh (2014) is a type of research design that studies both large and small populations by selecting and studying samples chosen from the population to discover the relative incidence, distribution and interrelations of sociological and psychological variables. It involves the assessment of public opinions using questionnaires and sampling method. This method is most appropriate for this study as the researchers collected and analyzed data from teachers and entrepreneurs of Electrical Installation and Maintenance work Trade in Science and Technical Colleges in North East Geo – Political Zone, Nigeria. The study was carried out in North East Geo- Political Zone, Nigeria. North East Geo- Political Zone is one of the six geopolitical zones of Nigeria, and comprises of Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe states of Nigeria. The North East Geo- Political has 24 science and technical colleges and seventy eight industries in the zone (ITF, 2010)

The population for the study was made up 83 teachers of Electrical Installation and Maintenance Work Trade, in the twenty four (24) science and Technical Colleges and 78 entrepreneurs in seventy eight industries in North East Geo- Political Zone, Nigeria. The number of respondents was 161 as at 2013/2014 academic session. The entire population of 155 were used for the study. According to Olaitan and Nwoke in Onuh (2014), when a study involves a population of relatively few individuals, institutions and things it becomes necessary to study the entire population. There was no sampling.

A structured questionnaire was used to collect information on entrepreneurial motivational and personal effectiveness training techniques needed by teachers of Electrical Installation and Maintenance Work Trade. The questionnaire was patterned in a five points Likert scale constructed by the researchers. The questionnaire was divided into A, B and C. Section A

solicited the personal data of the respondents while Sections B and C solicited views of the respondents on items relating to the research questions (land 2). The questionnaire is coded as:

Highly Needed	HN	=	5
Needed	N	=	4
Moderately	MN	=	3
Not Needed	NN	=	2
Highly Not Needed	HNN	=	1

The validity of the instrument was determined by the researchers using face and content validation. Copies of the questionnaire were given to 4 experts, who are professional teachers and entrepreneurs in management science and industries for the purpose of obtaining their comments. Two of the experts are from the University of Jos, plateau state and two from Dangote cement factory, Gboko, Benue state. Their comments and observations were taken into consideration before the final draft of the instrument. The reliability coefficient of the instrument was 0.95. It was obtained using Cronbach Alpha to determine the internal consistency, because the responses were not dichotomous but has multiple modes (Tolubi, 2001). Ten (10) subjects were used for trial test comprising of 6 industrial training officers from Gboko Cement Company and 4 Electrical Installation and Maintenance work trade teachers in Government Science Technical College Makurdi, Benue State. The subjects were selected through Purposive Sampling Technique. The structured questionnaire that was used to collect data was administered directly to the respondents by the researchers with the help of 2 assistants. To be sure that a high rate of return of questionnaire was obtained, the same assistants were still contacted to collect the same questionnaire back. Out of 83 questionnaires that were administered, 80 (96.3%) were retrieved as properly completed. Seventy eight (78) questionnaires

were administered to the entrepreneurs, but (89.7%) were properly filled and returned.

Data obtained from the respondents were analyzed using mean, standard deviation and t-test of difference between two means. Mean and standard deviation were used to answer the research questions, while the t-test was used to test the hypotheses. For research questions 1 and 2, they were analyzed using mean and standard deviation. To be able to take decisions on each test, the real limits of numbers was used, that is to say any item with a mean score 3.49 and above is considered as needed or otherwise not needed. The real limit of numbers is illustrated below:

Scale	Scale point	Lower limit	upper limit
Highly Needed (HN)	5	4.50	5.00
Needed (N)	4	3.50	4.49
Moderately Needed (MN)	3	2.50	3.49
Not Needed (NN)	2	1.50	2.49
Highly Not Needed (HNN)	1	0.50	1.49

(Adapted, from Daramola, 2008)

For moderately needed was taken as being within the range of needs. Based on the real limit of numbers, the criterion reference mean was 3.0. For decision to be taken the upper limit of 3.0 being 3.49 was used. Hypotheses 1 and 2 were tested using t- test of difference between two means. The decision to reject or not to reject null hypotheses was dependent on whether the calculated value of the test statistics was greater than the critical value at 0.05 level of significance. Thus, reject the null hypotheses if the calculated value of the test statistic is greater than the critical value. However, do not reject the null hypotheses if the value of the test statistic is less than the critical value.

RESULTS

Research Question 1: What are the entrepreneurial motivational training techniques needed by teachers of electrical installation and maintenance work trade in science and technical colleges?

Table1: Mean and standard deviation responses on the entrepreneurial motivational training techniques needed by teachers of electrical installation and maintenance work trade in science and technical colleges

S/No	Entrep. Motivational Train. Techniques	N ₁ =80		N ₂ =75		X _T	Remark
		\bar{X}_1	S.D ₁	\bar{X}_2	S.D ₂		
1	Organize entrepreneurial week	3.51	1.20	4.31	0.91	3.91	Needed
2	Competition learning techniques	4.03	1.13	4.31	0.91	4.17	Needed
3	Use of personal instruction	3.60	1.29	3.94	1.06	3.77	Needed
4	Group techniques to create new ideas	3.96	1.05	4.02	0.99	3.97	Needed
5	Expose staff to innovations regularly	3.98	1.31	4.30	0.95	4.14	Needed
6	Organize field trips to interesting places for teachers or students	3.53	1.41	3.89	1.18	3.71	Needed
7	Give challenging tasks, not discouraging ones	3.54	1.34	4.01	1.16	3.78	Needed
Grand mean		3.74	1.00	4.11	1.10	3.92	Needed

\bar{X}_1 = Mean responses for teachers

\bar{X}_2 = Mean responses for entrepreneurs

\bar{X}_T = Mean responses of teachers and entrepreneurs
 SD_1 = Standard deviation responses of teachers
 SD_2 = Standard deviation responses of entrepreneurs

Table 1 indicates the mean responses of teachers and entrepreneurs on the entrepreneurial motivational training techniques needed by teachers of electrical installation and maintenance work trade in science and technical colleges. The table shows that the group of respondents needed entrepreneurial motivational training techniques in all the seven items as these items grand mean range from 3.74 - 3.92, with a

corresponding standard deviation of ranging from 1.00-1.10.

Research Question 2: What are the personal effectiveness training techniques needed by teachers of Electrical Installation and Maintenance work trade in science and Technical Colleges?

Table 2: Mean and standard deviation responses of teachers and entrepreneurs on the personal effectiveness retraining techniques needed by teachers.

S/No	Entrepreneurial personal effectiveness	\bar{X}_1	S.D	\bar{X}_2	S.D	\bar{X}_T	Remark
1	Develop oneself entrepreneurial skills and others	3.54	1.34	3.54	1.11	3.54	Needed
2	Identifies ones entrepreneurial strength	3.57	1.24	3.62	1.39	3.59	Needed
3	Identifies entrepreneurial ones weakness	2.01	1.31	2.06	1.19	2.07	Not needed
4	Help colleagues to learn entrepreneurial skills	2.27	1.22	2.63	1.45	2.45	Not needed
5	Take responsibility for others	2.27	1.23	2.49	1.82	2.38	Not needed
6	Use resource wisely to manage an enterprise	2.30	1.13	2.46	1.85	2.38	Not needed
7	Use proper time wisely to manage resources	3.54	1.38	3.71	1.85	3.62	Needed
Grand mean		2.78	1.10	2.93	1.11	2.86	

Table 2 indicates the mean responses of teachers and entrepreneurs on the personal effectiveness retraining techniques needed by teachers. The data reveals that out of the seven items, 3 items (1,2 ,and7) were agreed

upon as needed because their individual grand mean values ranged above 3.49 while the rest other four rated not needed, fall below 3.54- 3.62, with a corresponding standard deviation ranging from 1.10 -1.11.

Table 3: Summary of t-test of difference between the mean scores of Electrical Installation and maintenance work trade teachers and entrepreneurs on the entrepreneurial motivational training techniques needed by teachers.

Group	Mean	S.D	N	Df	A	t-cal	t-crit	Dec.
Teachers	3.00	1.00	80	153	0.05	1.56	1.96	NS
Entrepreneurs	3.50	1.10	75					

The value of the t-calculated (1.56) is less than the t-calculated (1.96) which indicates that there is no significant difference between the responses of

teachers and entrepreneurs. This shows that the null hypothesis was not rejected.

Table 4: Summary of t-test of difference between the responses of Electrical installation and maintenance work trade teachers and entrepreneurs on entrepreneurial personal effectiveness training techniques needed by teachers.

Group	Mean	S.D	N	Df	A	t-cal	t-crit	Dec.
Teachers	3.00	1.10	80	153	0.05	1.75	1.96	NS
Entrepreneurs	3.06	1.11	75					

The t-calculated (1.75) is lower than the t-critical (1.96). It therefore shows that the null hypothesis was accepted. This clearly shows that there is no significant difference between responses of teachers and entrepreneurs.

work trade teachers and entrepreneurs on the personal effectiveness training techniques needed by teachers.

FINDINGS

1. All the Electrical Installation and Maintenance work trade teachers needed entrepreneurial motivational training techniques in item 1, 2, 3 4, 5 and 7 as presented in Table 1.
2. The Electrical Installation and Maintenance work trade teachers needed entrepreneurial personal effectiveness training techniques in items 1, 2 and 7 as presented in table 2.
3. There is no significant difference between the mean opinions of electrical installation and maintenance work trade teachers and entrepreneurs on the entrepreneurial motivational training techniques needed by teachers.
4. There is no significant difference between the mean opinions of electrical installation and maintenance

DISCUSSION

With regards to teachers' entrepreneurial motivational training techniques, the study revealed that Electrical installation and maintenance work trade teachers in the North East Geo-political zone of Nigeria needed further retraining in their pursuit of entrepreneurial training. All the seven items posed were rated needed, which indicate further training. These items are: organize entrepreneurial week, competition learning techniques, use of personal instruction, group techniques to create new ideas, expose staff to innovations regularly, organize field trips to interesting places for teachers and students and giving challenging tasks, not discouraging ones. These findings agreed with Suleiman (2000) and Adesina (2001), who noted that teachers need to place much emphasis on the training techniques to boost the positive behaviours of the students in teaching and learning.

As regards table 2, it was found out that one of the 7 items presented; only 3 representing 42.8% was rated to needed, while the rest 4 were rated not needed. The findings on the entrepreneurial personal effectiveness training indicated more training for teachers in the area of: developing oneself and others, identifying ones strength, and the use of time wisely. These findings agreed with the assertion of Bayatzis (2002), who stated that teachers who want to improve should renew both their effectiveness and efficiency; So as to teach the young ones. The findings in hypothesis 1, table 3 reveals that the null hypothesis was accepted, as the calculated value of t (1.56) is less than the critical value of (1.96), at 0.05 level of significance. By this, it shows that there was no significant difference between the mean opinions of teachers and entrepreneurs the entrepreneurial motivational training techniques needed by teachers. This finding- validates the findings of research question 1, that there is a unanimous agreement that the group of respondents needed entrepreneurial motivational training techniques in all the seven items.

On the hypothesis 2, table 4, the null hypothesis was accepted, as the calculated value of t (1.75) is lower than the critical value of (1.96), at 0.05 level of significance. It therefore indicates that there was no significant difference between the mean and opinions of teachers and entrepreneurs on the entrepreneurial personal effectiveness training techniques needed by teachers. This finding- validates the findings of research question 2, that the Electrical Installation and Maintenance work trade teachers needed entrepreneurial personal effectiveness training techniques in items 1, 2 and 7 as presented.

CONCLUSION

Based on the findings of the study on entrepreneurial motivational and personal effectiveness training techniques needed by teachers of Electrical Installation and Maintenance work trade in Science and Technical colleges of North East Geo-political Zone, Nigeria, it was concluded that the teachers of Electrical Installation and Maintenance work trade in Science and Technical colleges and entrepreneurs perceived that, if each stakeholder observed the entrepreneurial motivational training techniques and the personal effectiveness retraining techniques suggested and holistically observed, there is going to be a proper coordination and solidified entrepreneurial skills to manage an enterprise and the students trained would graduate with entrepreneurial motivational and personal effectiveness training techniques for establishing small and medium scale enterprises in the present world of work.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations have been made:-

1. Teachers of electrical installation and maintenance work trade should be trained through seminars, conferences, workshops, formal education in order to have good knowledge of entrepreneurial skills to enable them manage small and medium scale enterprises.
2. Teachers trained on entrepreneurial skills should impart the knowledge to their students to enable them graduate with entrepreneurial motivational and personal effectiveness training techniques for establishing small and medium scale enterprises in the present world of work.

3. The teachers and students should be encourage to establishing their workshops, contributing their own quota to industrial development of this nation and become employers of labour instead of hoping on paid employment

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